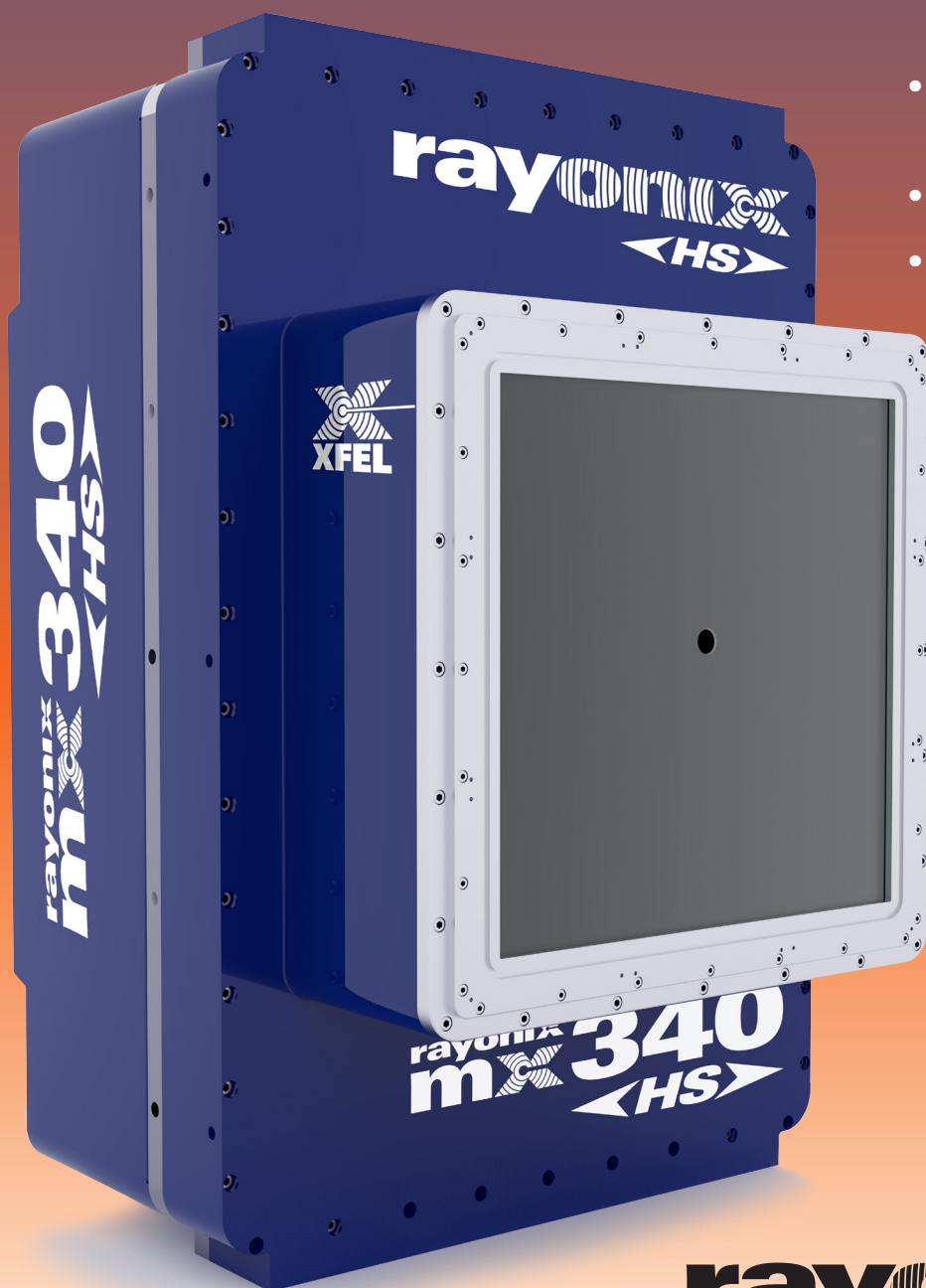


XFEL series

X-ray detectors for high speed XFEL applications



- No gaps in imaging area
(or continuous imaging area)
- 18 bit dynamic range
- Up to 120 frames per second



XFEL series

X-ray detectors for high speed XFEL applications

Any Rayonix High-Speed X-ray detector is suitable for use at Free Electron Laser facilities (XFELs). Scientists have approached Rayonix with the request for an unobstructed beam tunnel through the center of the large, square imaging area, exiting at the back of the detector. This has been implemented for the MX170-HS system, and is also available for the MX300-HS and the MX340-HS detectors. The inner diameter of the tunnel is 5mm.

Table Title

	Mode	Turbo	Standard	Low Noise	HDR (18 bit)
	Read Noise	8.5 e ⁻ /pixel	8 e ⁻ /pixel	4.5 e ⁻ /pixel	4.0 e ⁻ /pixel
On-Chip Binning	Pixel Size	Max Frame Rate (sec ⁻¹)	Max Frame Rate (sec ⁻¹)	Max Frame Rate (sec ⁻¹)	Max Frame Rate (sec ⁻¹)
1×1	44	3	2.5	2	0.8
2×2	89	11	10	7	3
3×3	133	23	20	16	7
4×4	177	37	33	27	12
5×5	221	52	47	39	19
6×6	266	68	62	52	26
8×8	354	101	92	80	43
10×10	440	132	123	108	62

Rayonix High Speed X-ray detectors can be operated in several modes, ranging from Turbo mode with up to 132 frames/second to the High Dynamic Range mode providing 18bit data frames. Modes and pixel sizes are easily selected by the user for each experiment. Dependable factory calibration is permanent and valid for all modes.

